3 - Service Software Instructions

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Service software

Overview

The following steps will be required to use service software with RH-51/52, RH-67/68.

- Install Phoenix Service Software.
- Install data package for RH-51/52, RH-67/68.
- FPS-8 flash update.
- JBV-1 docking station SW update.

Phoenix

Phoenix is the new generation service software for reprogramming, testing and tuning the phone. It has been designed to meet the challenges in servicing modern cellular phone technology.

The Phoenix program has been built using component architecture. This means that the actual program is small and most of the program's functionality is divided into dynamically loaded modules (DLLs).

Supported operating systems

Windows 2000 and XP.

Hardware requirements for using Phoenix

Minimum:
Processor 300 MHz, RAM memory 64 MB, disk space 100 MB.

Recommended for Windows 2000:
Processor 700 MHz, RAM memory 256 MB, disk space 150 MB.

Introduction

This section briefly describes how to install the Phoenix software and includes some basic information on how to use the program. For more detailed information, please refer to Phoenix **Help** files. Each feature in Phoenix has its own Help function, which can be activated while running the program.

Press the *F1* key or the feature's Help button to activate a Help file.

Installing Phoenix

Phoenix Service Software **2004.32.6.62 or later** required.

It is recommended to uninstall the previous RH-51/52, RH-67/68 Phoenix package before installing the new one. Do it as follows:

- Download the latest Phoenix release. Please contact your regional After Market Services point for information on where to download the latest release.

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Download and read the release notes which have useful information on the software version you are using.

- Download the latest data packages for the products you will be using.
- Before you start installing the program, check that the dongle is attached to the parallel port. Contact your supervisor in order to obtain a suitable dongle. Administrator rights are required in order to be able to install Phoenix.
- Install Phoenix by executing the Phoenix installation package and follow the instructions on the screen.
  Initially, the setup files are extracted into the file system.

  Note: If the setup files are already extracted (left in the file system from previous installation) the "Overwrite Protection" dialog appears. Always click **"Yes to All"** to overwrite the existing setup files.
- The installation checks that the latest supported dongle driver version is installed. The dongle driver is installed if there is no previous installation of the dongle driver or if the installed dongle driver is older than the latest supported version.

  Note: If the dongle driver is installed during installation, you need to reboot your PC and restart the installation after reboot.

  Program files are stored under *C:\Program Files\Nokia\Phoenix* (default).

Uninstalling Phoenix

If you need to remove Phoenix Service Software from your computer:

- Make sure that the dongle is attached.
- Go to the **Control Panel** and select **Add/Remove Programs**.
- Select **Phoenix Service Software Axx 200x.xx.x.xx**.
- Click **Change/Remove** then **OK** to remove the application.

You may have to reboot your PC after uninstallation.

Data packages

The product data package contains all product specific data to make the Phoenix Service Software and tools usable with a certain phone model. Each product has its own data package (DP).

Data files are stored under *C:\Program Files\Nokia\Phoenix* **(default)**.

It also includes the latest version of the flash update package for FLS-4S* and FPS-8*.

Before installation

- Check that the dongle is attached to the parallel port of your computer.
- Install Phoenix Service SW.

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- Download the installation package (e.g. RH-51_dp_EA_v_1_0.exe) to your computer (e.g. C:\TEMP).
- Close all other programs.
- Run the installation package (e.g. RH-51_dp_EA_ v_1_0.exe) and follow the instructions on the screen.

If you already have the Phoenix Service SW installed on your computer, sooner or later there will be need to update it when new versions are released.

Please note that very often the Phoenix Service SW and the phone specific data package for Phoenix come in pairs, meaning that a certain version of Phoenix can only be used with a certain version of the data package. Always use the latest available versions of both. Instructions can be found in phone model specific Technical Bulletins.

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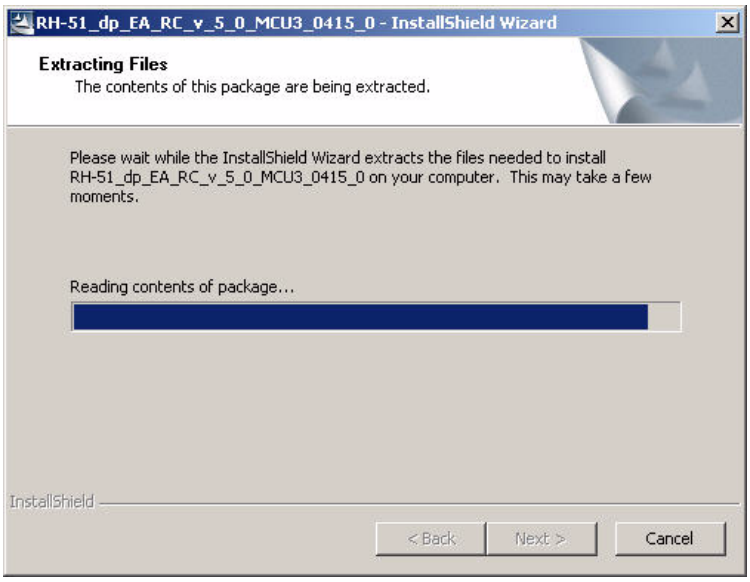
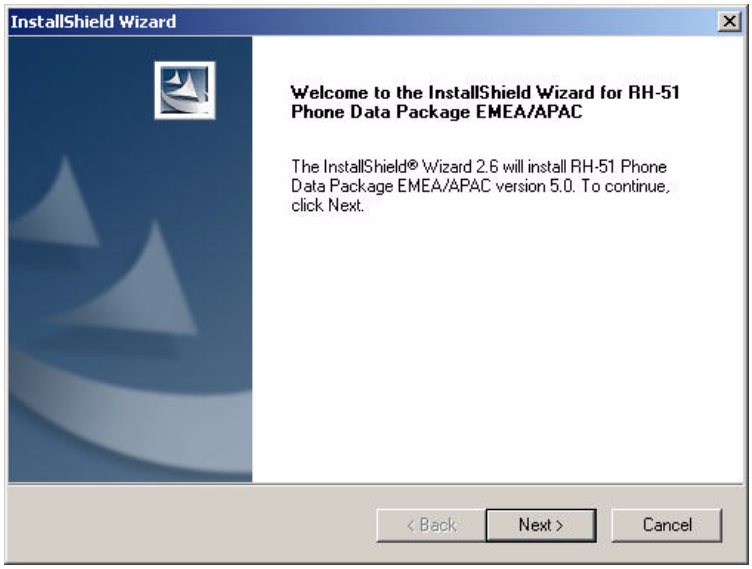
Installing Phoenix data package (product specific)

Run the installation package (e.g. RH-51_dp_EA_ v_1_0.exe to start the installation.

When you choose **Next** the files needed for installation will be extracted. Please wait.


RH-51_dp_EA_RC_v_5_0_MCU3_0415_0 - InstallShield Wizard
Extracting Files
The contents of this package are being extracted.
Please wait while the InstallShield Wizard extracts the files needed to install RH-51_dp_EA_RC_v_5_0_MCU3_0415_0 on your computer. This may take a few moments.
Reading contents of package...
InstallShield
< Back
Next >
Cancel

Choose **Next** to continue.


InstallShield Wizard
Welcome to the InstallShield Wizard for RH-51 Phone Data Package EMEA/APAC
The InstallShield® Wizard 2.6 will install RH-51 Phone Data Package EMEA/APAC version 5.0. To continue, click Next.
< Back
Next >
Cancel

In this view, you can see the contents of the data package.

Read the text carefully.

There should be information about the Phoenix version needed with this data package.

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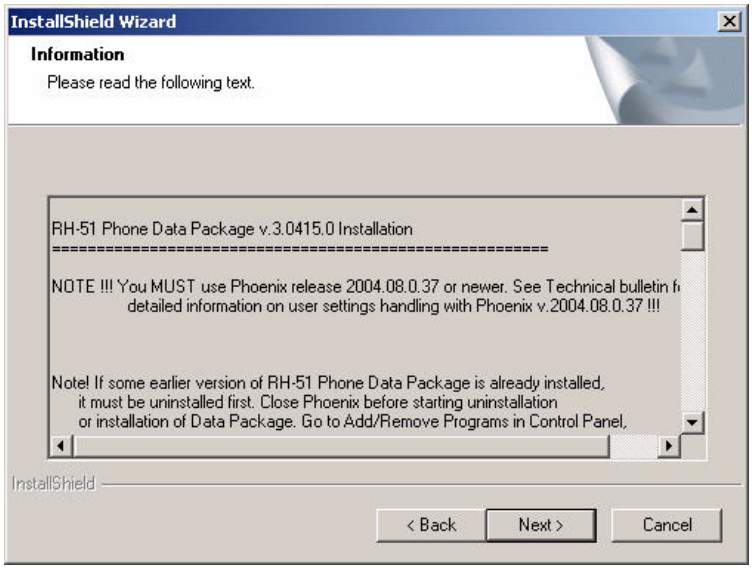
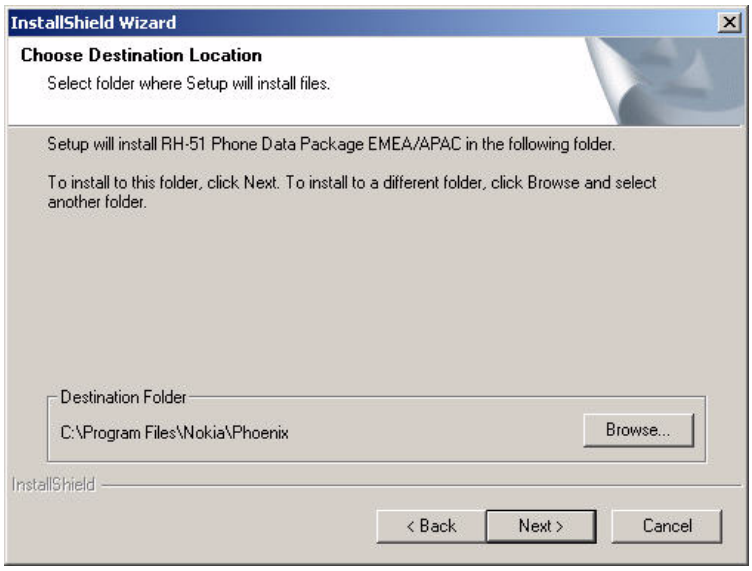
Choose **Next**.


InstallShield Wizard
Information
Please read the following text.
RH-51 Phone Data Package v.3.0415.0 Installation
NOTE !!! You MUST use Phoenix release 2004.08.0.37 or newer. See Technical bulletin f
detailed information on user settings handling with Phoenix v.2004.08.0.37 !!!
Note! If some earlier version of RH-51 Phone Data Package is already installed,
it must be uninstalled first. Close Phoenix before starting uninstallation
or installation of Data Package. Go to Add/Remove Programs in Control Panel,
InstallShield
< Back
Next >
Cancel

Confirm location and choose **Next** to continue.


InstallShield Wizard
Choose Destination Location
Select folder where Setup will install files.
Setup will install RH-51 Phone Data Package EMEA/APAC in the following folder.
To install to this folder, click Next. To install to a different folder, click Browse and select another folder.
Destination Folder
C:\Program Files\Nokia\Phoenix
Browse...
InstallShield
< Back
Next >
Cancel

The install shield checks where the Phoenix application is installed and the directory is shown.

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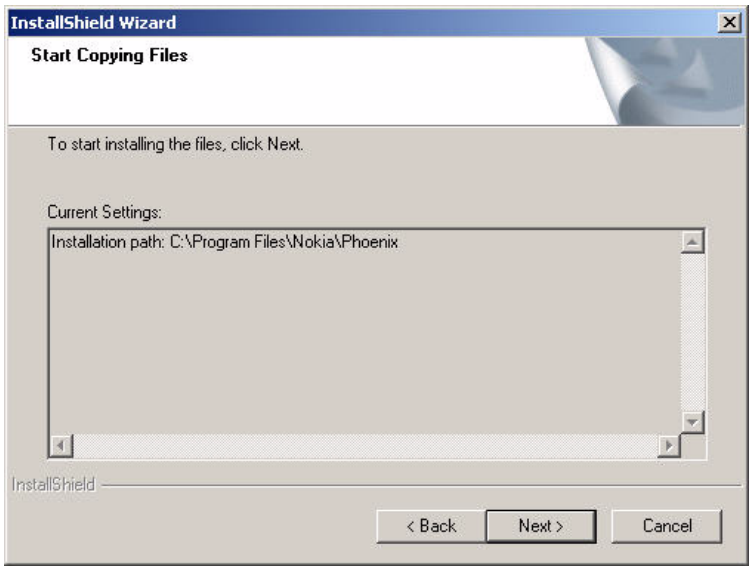
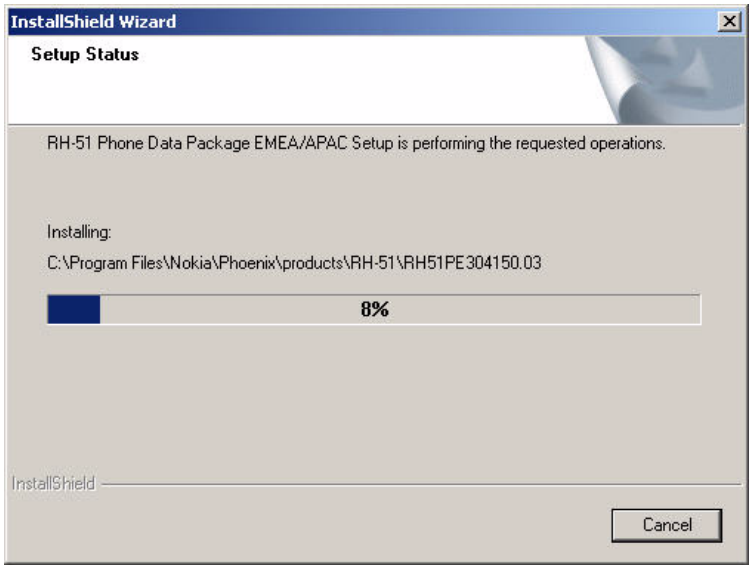
Choose **Next** to continue.



Phone model specific files will be installed. Please wait.



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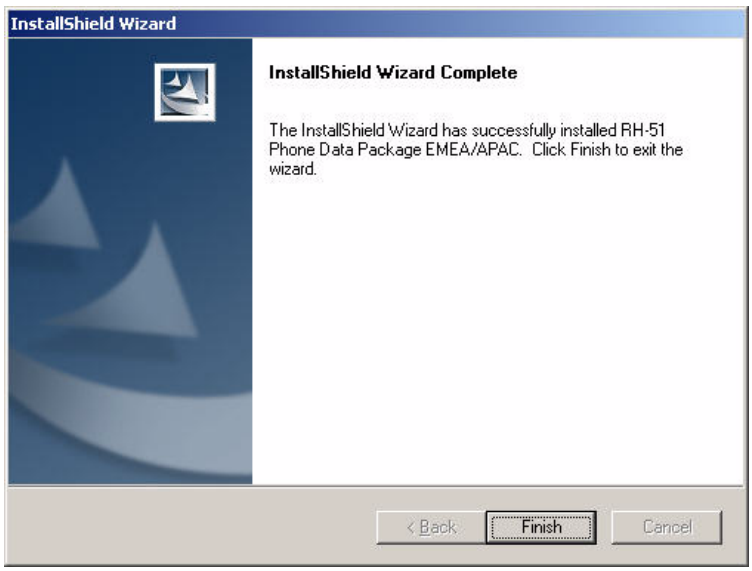
Choose **Finish** to complete the installation.


InstallShield Wizard
InstallShield Wizard Complete
The InstallShield Wizard has successfully installed RH-51 Phone Data Package EMEA/APAC. Click Finish to exit the wizard.
< Back
Finish
Cancel

You now have all phone model specific files installed in your Phoenix Service SW.

Uninstalling Phoenix data package

Uninstallation can also be done manually from Windows Control Panel / Add / Remove Programs/"RH-51 Phone Data Package".

If you try to install the same version of Phoenix data package that you already have, you are asked if you want to uninstall the version you have on your PC. Answer **OK** to uninstall, **Cancel** if you don't want to uninstall. Older versions of data packages do not need to be uninstalled.

Uninstall RH-51 Phone Data Package EMEA/APAC
Do you want to completely remove the RH-51 Phone Data Package EUR application and all of its components?
OK
Cancel

Once the previously installed data package is uninstalled, choose **Finish**.

Run the installation package again to continue installation from the beginning.

FPS-8 flash update

Flash update **3.14.000 or later** required**.**

When you have a connection established to FPS-8, and FPS-8 has been activated, the first thing to do is to check that you have the correct application SW version inside FPS-8. Phoenix SW can check that automatically.

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The procedure for manual update is as follows:

- Start Phoenix SW.
- Click on **Flashing.**
- Click on **FPS-8/FPS-8C Maintenance.**
- If SW inside FPS-8 prommer is too old, you get the notification:
  Click **Yes.**

You see on the small screen as the Prommer goes to service mode (mode2 is lit) SW goes into box, application SW, secondary boot codes and algorithm codes are updated.

JBV-1 docking station SW update

The JBV-1 docking station is a common tool for all DCT-4 generation products.

In order to make the JBV-1 usable with different phone models, a phone specific docking station adapter is used for different service functions.

The JBV-1 docking station contains software (Firmware) which can be updated.

You need the following equipment to be able to update JBV-1 software:

- PC with USB connection
- operating system supporting USB (not Win 95 or NT)
- USB cable (can be purchased from shops or suppliers providing PC hardware and accessories).
- JBV-1 docking station.
- external power supply 11-16V.

Before Installation:

- Download *Jbv1_update.zip* – file to your computer (e.g. C:\TEMP) from your download web site.
- Close all other programs.

Installing SW needed for the JBV-1 SW update

DO NOT CONNECT THE USB CABLE / JBV-1 TO YOUR COMPUTER YET!

Run *Jbv1_update.zip* file and start SW installation by double clicking *Setup.exe.*

Follow the instructions, then all files needed for the JBV-1 package setup program are installed.

NOW YOU CAN CONNECT THE USB CABLE / JBV-1 TO YOUR COMPUTER!

Connect power to JBV-1 (11-16V DC) from an external power supply, then connect the USB cable between JBV-1 USB connector and PC.

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Windows will detect the connected USB cable and drivers for the new HW. Please follow the instructions and allow Windows to search and install the best drivers available. After this procedure, the actual JBV-1 SW update can begin.

Updating the JBV-1 docking station software

Go to folder *C:\Program Files\Nokia\JBV-1 SW Package\ FIRMWARE UPDATE* and start the JBV-1 Update SW by double clicking *fwup.exe.*

The JBV-1 firmware update starts and shows the current status of the JBV-1 connected.

If the firmware version read from your JBV-1 is not the latest one available, it needs to be updated by choosing **Update Firmware**.

Choose file JBV1v18.CDE (example used here is for v 18) and Open to update your JBV-1.

After a successful update, the current JBV-1 status is shown. You have now updated the software of your JBV-1 docking station and it is ready for use.

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Reprogramming RH-51/52, RH-67/68

Setup

Open RH-51, RH-52, RH-67 or RH-68, remove the battery and SIM, then attach it to the SF-21 adapter. Once connected to the SF-21, the phone goes to local mode and the screen will not show anything during the SW update.

Note: More than 32MB SRAM required in FPS-8.

Proceed as follows:

- Connect XCS-4 cable from SF-21 to FPS-8.
- Connect FLC-2 cable from FPS-8 to SF-21.

There is no need to press the phone power key. Phone has set itself automatically to local mode and it is now ready for SW update.

Start Phoenix SW by double-clicking the Phoenix icon on your desktop.

- Choose **File**->**Manage Connections**.
- Click **FPS-8 COM1 FBUS**.
- Click **Apply**, and then close the dialog.
- Choose **File**->**Scan Product**. If the phone is ok, you should see the SW version in lower right-hand corner, for example V1.31.0.

If the scanning finds nothing, the phone is most likely in a strange mode.

Settings backup/restore

MMC user data backup is **strongly** recommended since it's faster than over Phoenix. All user data will be erased during updating the software by the data package.

Menu -> Extras -> Memory-> Options -> Backup phone memory.

If MMC is not available or doesn't have enough area left, backup the settings using Phoenix.

- Click **Product** in menu bar.
- Click **User settings**.
- Click **All Settings**.
- **Check All** or check each item which you need to backup.
- Click **Save.**
- Select folder and input file name.

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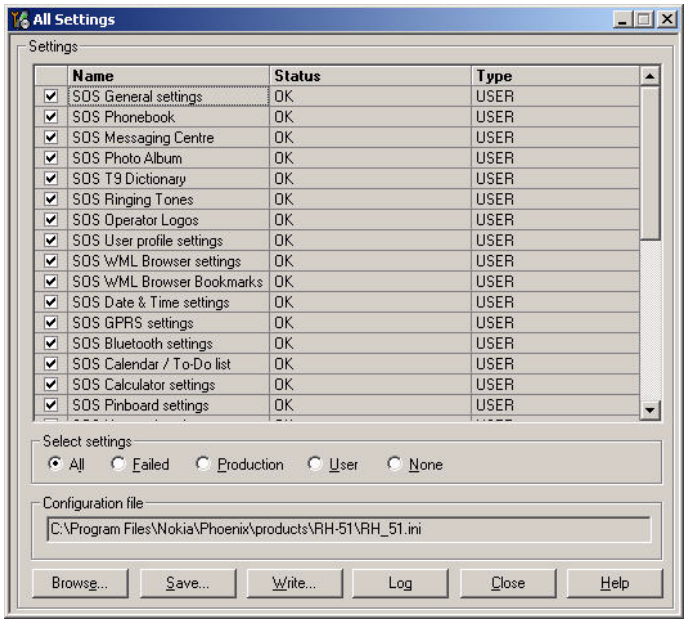

Updating software

Choose **Flashing -> FPS-8 Flash** -> Choose **Restore User Phone or Phone as Manufactured** -> Uncheck **Manual File Selection**. Then click on **Flash**.

Now, in the Flash file selection window, choose the product code.

Appropriate files will be selected automatically:

Now click **OK**, and SW update starts.

You will see as the package goes into FPS-8, erasing and programming the phone.

If transfer is very slow, it is recommended that the parallel port is in the ECP mode. Transfer in the ECP mode is much faster. If you do not know how to change the PC parallel port mode from BIOS, contact your local support.

When SW update has ended, the yellow led stops blinking and you get a note in windows SW.

You will get instructions to turn the phone on. Push the power key to turn on the phone, then wait for 15 seconds.

Choose **File** -> **Scan product**. In the bottom of the Phoenix window you should see the latest SW version.

Restoring settings

Restore user settings from MMC or Phoenix.

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Service concept and setup

Flash concept

Item	Description	Type	Code
1	Point of Sales flash loading adapter	SF-21	0770685
2	Power cable	FLC-2	0730185
3	Modular cable	XCS-4	0730178
4	Flash prommer box sales pack	FPS-8	0080321
5	Printer cable	AXP-8, incl in FPS-8 sales pack	
6	D9 – D9 cable	AXS-4, incl in FPS-8 sales pack	0730090
7	Software protection key	PKD-1	0750018
8	AC Charger,	ACF-8, incl in FPS-8 sales pack	0680032
9	SRAM Module (3 pcs needed inside FPS-8)	SF12	0080346 (Code includes one SRAM module)

Note: More than 32MB SRAM required in FPS-8.

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POS flash concept

Item	Description	Type	Code
1	Point of Sales flash loading adapter	SF-21	0770685
2	Service cable	XCS-1	0730218
3a	FLS-4S sales pack for EMEA	FLS-4S	0080541
3b	FLS-4S sales pack for APAC	FLS-4S	0080542
3c	FLS-4S sales pack for US	FLS-4S	0080543

Note: More than 32MB SRAM required in FPS-8.

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JBV-1 flash concept

Item	Description	Type	Code
1	Docking station adapter	DA-18	0770682
2	Docking station adapter	JBV-1	0770298
3	Power cable	PCS-1	0730012
4	Modular cable	XCS-4	0730178
5	Flash prommer box sales pack	FPS-8	0080321
6	Printer cable	AXP-8, incl in FPS-8 sales pack	
7	D9 – D9 cable	AXS-4, incl in FPS-8 sales pack	0730090
8	Software protection key	PKD-1	0750018
9	AC Charger,	ACF-8, incl in FPS-8 sales pack	0680032
10	SRAM Module (3 pcs needed inside FPS-8)	SF12	0080346 (Code includes one SRAM module)

Note: More than 32MB SRAM required in FPS-8.

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Module jig flash concept

Flashing with MJ-25 is recommended in local mode.

The following equipment is required for RH-51/52, RH-67/68 AMS SW update when the system module is placed in the module jig MJ-25 and connected through a FPS-8 set-up:

Item	Description	Type	Code
1	Module jig	MJ-25	0770683
2	Power cable	PCS-1	0730012
3	Modular cable	XCS-4	0730178
4	Flash prommer box sales pack	FPS-8	0080321
5	Printer cable	AXP-8, incl in FPS-8 sales pack	
6	D9 – D9 cable	AXS-4, incl in FPS-8 sales pack	0730090
7	Software protection key	PKD-1	0750018
8	AC Charger,	ACF-8, incl in FPS-8 sales pack	0680032
9	SRAM Module (3 pcs needed inside FPS-8)	SF12	0080346 (Code includes one SRAM module)

Note: More than 32MB SRAM required in FPS-8.

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Module jig service concept

This concept is for troubleshooting and RF calibration.

MJ-25 is intended for use with an external power supply.

MJ-25 input voltage: normal +6V, maximum +12V.

Ensure that the jumper is set open for voltage regulation before the external power supply is connected.

When FPS-8 is used as the power supply (4V), the jumper should be set close to bypass regulator

EM calibrations including Zocus are only done with JBV-1. Module jig MJ-25 doesn't support Zocus calibration in RH-51/52, RH-67/68.

Item	Description	Type	Code
1	Module jig	MJ-25	0770683
4	RF cable	XRF-1	0730085
5	Power cable	PCS-1	0730012
7	MBUS cable	DAU-9S	0730108
8	Software protection key	PKD-1	0750018
9	External DC power supply		

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JBV-1 service concept

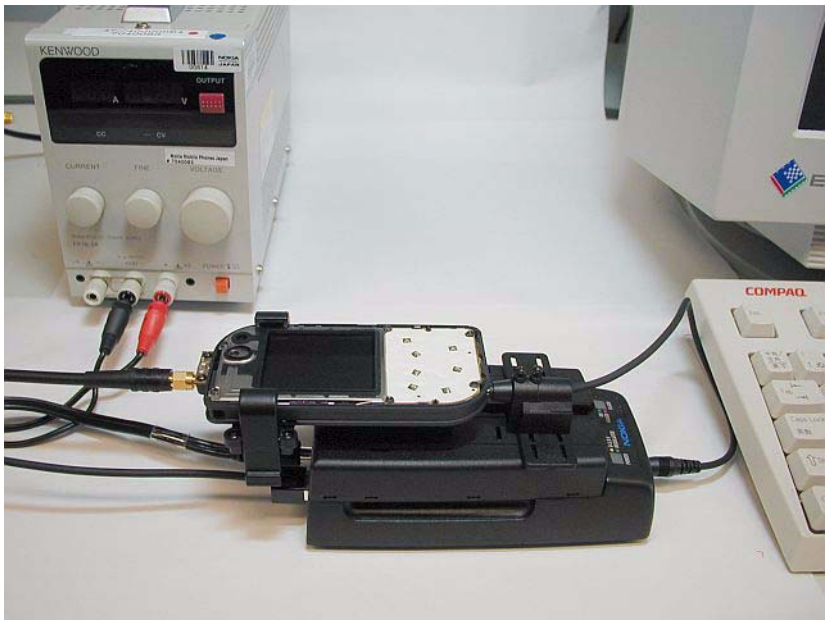
This concept is for BB and RF calibration.

EM calibration including Zocus should be carried out in JBV-1 and DA-18.

Power to JBV-1 should be supplied from an external DC power supply, NOT FPS-8.

JBV-1 input voltage: normal +12V, maximum +16V.

A-cover and RF antenna module need to be removed from the phone when SA-29 is attached.



Item	Description	Type	Code
1	Docking station adapter	DA-18	0770682
2	Docking station adapter	JBV-1	0770298
3	RF adapter	SA-29	0770686
4	RF cable	XRF-1	0730085
5	Power cable	PCS-1	0730012
6	DC cable	SCB-3	0730114
7	MBUS cable	DAU-9S	0730108
8	Software protection key	PKD-1	0750018
9	External DC power supply		

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